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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,519	07/23/2003	Sanjay Kotha	US 1330/02	7440
7590	11/22/2004		EXAMINER	
Law Office-Dinesh Agarwal, P.C. Suite 330 5350 Shawnee Road Alexandria, VA 22312			PATTERSON, MARIE D	
			ART UNIT	PAPER NUMBER
			3728	

DATE MAILED: 11/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/624,519	KOTHA ET AL.
Examiner	Art Unit	
Marie Patterson	3728	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### —Status—

1)  Responsive to communication(s) filed on \_\_\_\_.

2a)  This action is **FINAL**.                    2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## **Disposition of Claims**

4)  Claim(s) 1-100 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1-100 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on 24 February 2004 is/are: a)  accepted or b)  objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/25/04& 7/23/03.

4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other: \_\_\_\_.

***Claim Rejections - 35 USC § 112***

1. Claims 7, 8, 19, 20, 25, 26, 28, 34, 35, 39, 40, 47, 52, 58, 63-65, 68, 69, 76, 81, and 87 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 7, 8, 34, 35, and 63-65 are solely functional rendering the claims vague and indefinite as to what structural limitations applicant intends to encompass with such language. It is not clear what further structural limitations applicant intends to encompass with these claims.

In claim 19 the phrases "said first coating" and "said second coating" lacks antecedent basis rendering the claims vague and indefinite.

Claims 15, 20, 47, 52, 76, and 81 include a trademark "Surfynol" which is vague and indefinite when used in claims because a trademark is not definite.

In claim 25 the phrase "the fraction" lacks antecedent basis rendering the claim vague and indefinite.

In claims 26, 58, and 87 the phrase "needle-like" is vague and indefinite.

Claim 28 is identical to claim 2 rendering the further limitations intended to be encompassed by claim 28 unclear.

Claims 39, 40, 68, and 69 appear to not be limiting rendering the limitations intended to be encompassed by these claims unclear.

The above noted defects are merely representative and are in no way to be construed to be a complete listing thereof. Due to the extremely high number of claims the Examiner has attempted to point out the main errors and it is requested that applicant ensure correctness of all of the claims according to the above noted defects, i.e. some identical language may be present in claims which have not been listing which should also be corrected.

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-8, 28, 88, and 98-100 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Christensen (2003/0216815).
3. Claims 1, 2, 4, 6-8, and 88 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Saiguchi (2001/0011810).

#### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 10-13, 26, and 95 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Christensen '815 or Saiguchi '810.

Either Christensen '815 or Saiguchi '810 show a cushion with a chamber (58 or 100) with a magnetically responsive fluid (66, 140 or 102), and a magnetic member (152 or 104 and 106) substantially as claimed except for the exact size of the magnetic

particles. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use particles with a diameter of 10-5nm, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

Either Christensen '815 or Saiguchi '810 discloses the claimed invention except for the exact fluid and/or material for the magnetic particles. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use water, oils, iron, iron oxide, cobalt, nickel, etc., since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

6. Claims 6-26, and 95 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Christensen '815 or Saiguchi '810 in view of Weiss (5599474).

Either Christensen '815 or Saiguchi '810 shows a cushion substantially as claimed except for the exact particles in the fluid. Weiss teaches the use of a particle with two coatings. It would have been obvious to use the magnetorheological material taught by Weiss for the fluid and/or particles in the cushion of either Christensen '815 or Saiguchi '810 to minimize the variance in force required by the device over a given temperature range, i.e. to reduce the effect of temperature change on the performance of the device.

In reference to claim 95, it is well known to use particles of differing diameters in a magnetorheological fluid.

7. Claims 27, 29-40, 42-45, 59-69, 71-74, 89-94, 96, and 97 are rejected under 35 U.S.C. 103(a) as being unpatentable over Demon (5813142) in view of either Christensen '815 or Saiguchi '810.

Demon shows a cushioned shoe sole with a bladder which is responsive to a control system (300) which responds to sensors (100) to change the support provided by the bladders substantially as claimed except for the bladder and control system being magnetorheological. Either Christensen '815 or Saiguchi '810 teaches the use of a magnetorheological system for responding to forces and weight by adjusting the support provided by a bladder. It would have been obvious to use magnetorheological fluid and system as taught by either Christensen '815 or Saiguchi '810 in the shoe of Demon to reduce the moving mechanical elements of the shoe and to make the shoe sole system smaller.

8. Claims 41, 46-58, 70, and 75-87 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claims 27, 29-40, 42-45, 59-69, 71-74, 89-94, 96, and 97 above, and further in view of Weiss '474.

Demon as modified above shows a cushion substantially as claimed except for the exact particles in the fluid. Weiss teaches the use of a particle with two coatings. It would have been obvious to use the magnetorheological material taught by Weiss for the fluid and/or particles in the cushion of Demon as modified above to minimize the variance in force required by the device over a given temperature range, i.e. to reduce the effect of temperature change on the performance of the device.

In reference to claims 96 and 97, it is well known to use particles of differing diameters in a magnetorheological fluid.

1. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). Other useful information can be obtained at the PTO Home Page at [www.uspto.gov](http://www.uspto.gov).

In order to avoid potential delays, Technology Center 3700 is encouraging FAXing of responses to Office Actions directly into the Center at (703) 872-9306 (**FORMAL FAXES ONLY**). Please identify Examiner Marie Patterson of Art Unit 3728 at the top of your cover sheet.

Any inquiry concerning the MERITS of this examination from the examiner should be directed to Marie Patterson whose telephone number is (571) 272-4559. The examiner can normally be reached from 6AM - 4PM Mon-Wed.



Marie Patterson  
Primary Examiner  
Art Unit 3728